NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

Tree/Shrub Pruning

(acre)

Code 660

DEFINITION

Removing all or parts of selected branches or leaders from trees and shrubs.

PURPOSES

- Improve the appearance of trees or shrubs, e.g., ornamental plants and Christmas trees.
- Improve the quality of wood products.
- Improve the production of plant products, e.g., nuts, fruits, boughs and tips.
- Adjust the foliage and branching density for other specific intents, such as wind and snow control, noise abatement, access control, and visual screens.

CONDITIONS WHERE PRACTICE APPLIES

On trees of high-value (e.g. trees grown for select lumber, veneer or Christmas trees); on trees/shrubs where removing all or parts of branches enhances the beauty, fruit or nut production, and/or safety of an area; and to remove hazardous or diseased portions of trees.

GENERAL CRITERIA

The pruning and shearing method and timing will match the limitations of the site and soils, achieve purposes for the specific tree or shrub species, and be conducted in a safe and efficient manner.

Pruning or shearing will not adversely reduce the growth and vigor of the tree or shrub for the intended purpose.

Debris and vegetative material left on the site after treatment will not present a fire or pest hazard or interfere with the intended purpose and other management activities.

Never prune trees that are touching or near utility lines; instead consult your local utility company.

Plans and application of tree/shrub pruning shall comply with all applicable federal, state and local laws and regulations.

Appropriate, properly sharpened pruning tools will be used.

Pruning cuts will not be treated or painted.

Additional Criteria for Shearing or Shaping Christmas Trees

Begin shearing when trees are 3-5 years old (approximately 3 feet in height) and continue until trees are marketed.

For consumer preference shape trees so that the base is two-thirds as wide as the overall height.

Timing and intensity of shearing varies by species.

- Shear spruce and fir after the season's growth is complete and throughout dormant season. Shear spruce and fir just above a bud.
- Shear pines during the active growing season just before terminal growth is completed .

Maintain one terminal leader of 12 inches in length trimming just above a bud. Trim lightly during year of harvest.

Additional Criteria for Pruning Fruit Trees

Prune fruit trees in a dormant state, early spring just prior to the beginning of active growth. During this period wounds heal readily and the greatest amount of localized invigorating is achieved to stimulate shoot growth.

Pruning during the summer when trees are in leaf is more dwarfing than dormant pruning and is utilized only when dwarfing is desirable. Trees less than three years old shall not be summer pruned.

Additional Criteria for Pruning Flowering Trees and Shrubs

Trees and shrubs that flower before the end of June shall be pruned immediately after flowering.

Trees and shrubs that flower after the end of June shall be pruned during the dormant season prior to the beginning of active growth

Additional Criteria for Production of Wood Products

A. Corrective Pruning of Hardwoods

Prune seedlings in the spring before the new terminal has grown more than 3 inches. Remove the multiple leaders and any damaged terminals.

If a quality seedling is not apparent after 3 growing seasons, cut the tree off 1 inch above the ground during the dormant season. After stump sprouts appear, select the best sprout to leave and remove all others.

B. Clear Stem Pruning for Sawlog Production

Prioritize pruning of stands based on site quality and species.

Restrict pruning to the tallest and straightest trees in the stand.

Maintain single leaders. Lateral pruning can begin once the plant is 10 to 12 feet tall or 3 to 6 inches in diameter.

Preferred pruning time is late winter before bud break.

Prune to develop a single straight stem. Prune to a minimum of 10 feet; prune up to 18 feet if the objective is to produce clear sawlogs.

Do not prune higher than 1/2 of the total tree height or remove more than one-third of the live crown in a single pruning. If necessary, prune at 3-year intervals to reach an 18-foot height.

Prioritize pruning based on species and local markets. Prune only up to 150 crop trees per acre selecting only vigorous, single-stem trees.

Prune trees according to the following steps:

1. Locate the branch bark ridge (See figure 1).
2. Find **A** (outside edge of branch bark ridge.)
3. Find **B** (swelling where branch meets branch collar.) If **B** is difficult to determine drop a line from **A**: the angle **XAC** is equal to the angle **XAB** (see Figure 1).
4. Make the final cut on line **AB**.
5. Do not cut behind the branch bark ridge.
6. Do not leave stubs.
7. Do not cut into the branch collar.

See Figure 1 for general hardwood pruning guidelines and Figure 2 for general conifer pruning guidelines.

CONSIDERATIONS

The following species are favorable for pruning: Sugar Maple, White and Green Ash, Oak species, Basswood, Black Cherry, Black Walnut, Yellow Poplar, Red and White Pine. Preferred pruning time is late winter before bud break.

It is recommended to prune limbs that are small in diameter (<1 inch in diameter) because pruning cuts will normally close within one to two years

Limbs one inch in diameter or less will normally close within one or two years.

Limbs in excess of 2 inches in diameter may take up to 10 years to close.

Small branches and limbs (up to 1.5”) may be cut with a hand pruner or lopping shear. The by-pass style pruner is considered superior to the anvil style. The preferred tool for cutting small and medium sized limbs (1.5” to 4” diameter) is a hand or pole saw with a curved blade having approximately 6-8 backward-facing teeth per inch that cut on the “pull” stroke. Bow saws and chain saws are more appropriate for limbs larger than 4” in diameter.

Cutting into the branch collar, pruning flush to the trunk, or leaving a stub may increase decay and cause wood cracks and tissue die back.

Improper pruning may reduce the value of the timber, and cause trees/shrubs to be less healthy by increasing the incidence of disease or insect infestation.

Pruning and shearing should be timed to minimize disturbance to seasonal wildlife activities.

Pruning and shearing tools should be disinfected with 1 part bleach to 9 parts water or 70% denatured alcohol to prevent the spread of pathogens.

Review the estimated cost and projected economic benefits of the project before starting a pruning or shearing project.

Organic matter from decomposition of tree limbs will improve soil condition.

To maintain plant growth and sustain vigor, pruning and shearing may be done in two or more timed intervals.

Time pruning and shearing to minimize potential damage to the tree bole and stems.

Consider consultation with a qualified forester before beginning pruning activities.

Pruning between November 1 and March 1 may reduce the likelihood of introducing disease into the tree wound. The timing of pruning should consider the nesting and breeding needs of arboreal wildlife species.

PLANS AND SPECIFICATIONS

Specifications for applying this practice shall be prepared for each site and recorded using approved specification sheets, job sheets, narrative statements in the conservation plan, or other acceptable documentation. Species, site, limitations, methods, equipment, season of year, and guides to pruning for the applicable purpose shall be considered.

OPERATION AND MAINTENANCE

Periodically inspect plant condition and take additional actions as necessary, e.g., additional pruning, pest management, nutrient management, and forest stand improvement.

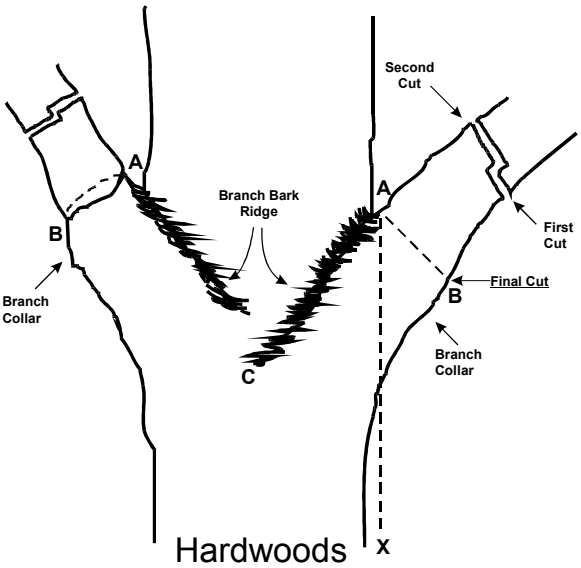

Figure 1 – Hardwood Pruning Guidelines

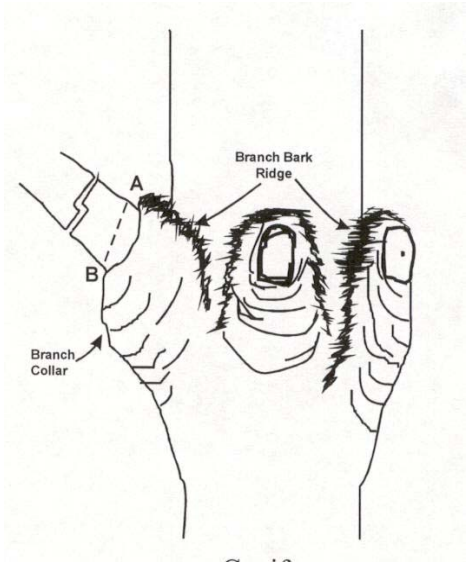

Figure 2 – Conifer Pruning Guidelines

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